

APPENDIX 3

CULTURAL RESOURCES INFORMATION

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- ❑ Historic Mines of the Southern Panamints: A Cultural Resources Inventory of the Cecil R – Jackson Exploration Project. ASM Affiliates, Inc. October 2001
- ❑ Native American Consultation Study for the Cecil R- Jackson Gold Exploration Project. Michael Baksh, Tierra Environmental Consultants. May 6, 2002

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HISTORIC MINES OF THE SOUTHERN PANAMINTS: A CULTURAL RESOURCES INVENTORY OF THE CECIL R - JACKSON EXPLORATION PROJECT

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APPENDIX A. Site Records for Newly Recorded Sites

MANAGEMENT SUMMARY

This report documents the records search and field inventory of cultural resources on the Cecil R - Jackson Exploration Project, an area of proposed mining covering 12.9 km² (3,188 acres) of rocky colluvium and mountainous terrain on the western slopes of the Panamint Mountains. This data was assembled to aid BLM in making determinations of eligibility for the National Register of Historic Places in compliance with Section 106 of the National Historic Preservation Act.

A record search of the project area with a 1.62 km (1 mile) buffer was conducted at the Eastern Information Center at the University of California, Riverside on June 4, 2001. Several archaeological sites, including one mine (Suitcase Mine), a house foundation known as Tom's Cabin, and an historical mining settlement were found within one mile of the project area. No resources were previously recorded within the project property.

An intensive field inventory was undertaken from June 1-10 and completed a 100 percent pedestrian survey of areas less than 20° slope plus a vehicular and pedestrian survey of roadsides. In addition to pedestrian survey, the mountain sides were checked using binoculars for adits, shafts, tailing, and machinery in locations that were inaccessible. None were found, but there were many trails on steep slopes leading between canyons. These trails, roughly parallel contours leading from one canyon to the next, were characteristic of modern burro trails. Spot-checking of some of the more accessible trails revealed burro tracks and scat. No prehistoric remains were found along these trails, but one modern cairn was found along such a trail.

Vehicular and pedestrian survey of existing roads and structures produced the most sites. Six historic resources were found which comprise features of two mining complexes and a trash scatter. The northernmost mine, under temporary site number INY-5943H, appears on historic USGS maps but is currently maintained by the CR Briggs Corporation. Artifacts found in this site did not conclusively point to an age greater than fifty years. To the west of this mine area four trash scatters were recorded as one site, INY-5940H and included a wide variety of cans and bottles. All of the artifacts appear to post-date WWII.

Of the six recorded sites, only INY-5938H contains artifacts diagnostic of early 20th century mining. Purple glass, manufactured no later than 1917, was found in one of two trash scatters along with many solder-sealed cans.

All of the sites are evaluated as not eligible for the National Register of Historic Places because of recent date, poor integrity, or limited research value. No additional treatment is recommended.

1. INTRODUCTION

This report presents the results of archaeological survey and site documentation on the Jackson Exploration Project within the Panamint Valley in Inyo County, California (Figure 1). Trona, California is the nearest modern settlement, 31 km (19 mi.) to the southwest. The Jackson Exploration Project is a 12.9 km² area (3,188 acres) covering alluvium, terraces and steep slopes of the Panamint Mountains (Figure 2).

Proposed activities at this phase of development include core drilling, with construction of access roads to drill sites (CR Briggs Corporation 2001). The project is on patented and unpatented mine claims on BLM land. This cultural resources inventory and evaluation was conducted to provide BLM with the data necessary for compliance with Section 106 of the National Historic Preservation Act (36 CFR 800). That calls for the identification of any cultural resources that might be eligible for the National Register of Historic Places and a determination of project effects on those resources.

A total of 2.7 km² (667 acres) were surveyed via pedestrian survey, or in hazardously steep terrain, visually by car. Steep slopes prevented a 100 percent coverage of the survey area, but mountainsides were scanned with binoculars for historic mining sites or other man-made features. Previous surveys were not conducted in the Jackson Exploration Project with the exception of one small section, approximately 15 acres in the northwestern corner. Records searches indicated no previously recorded archaeological sites within the project area. Six archaeological sites were found, however, during this current survey. All were associated with mining activity beginning after the first decade of the twentieth century. No prehistoric sites or features were discovered during this survey.

The report consists of six chapters. In Chapter 2 the regional background is presented. Then Chapter 3 discusses the field methods. The results of the survey are presented in Chapter 4, where each site is described. The report concludes in Chapter 5 with significance assessments (all of which are low) and recommendations.

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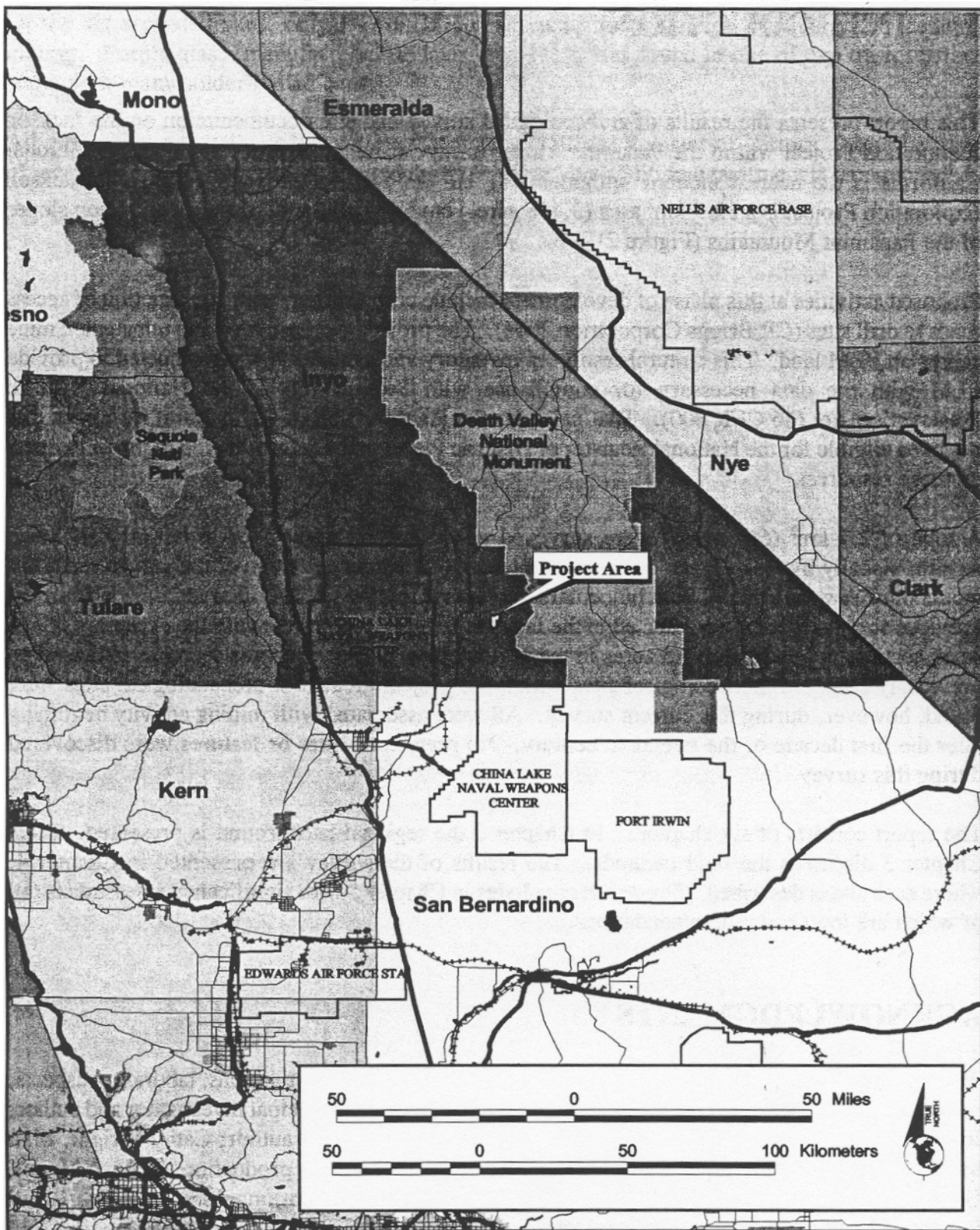


Figure 1. Project vicinity map.

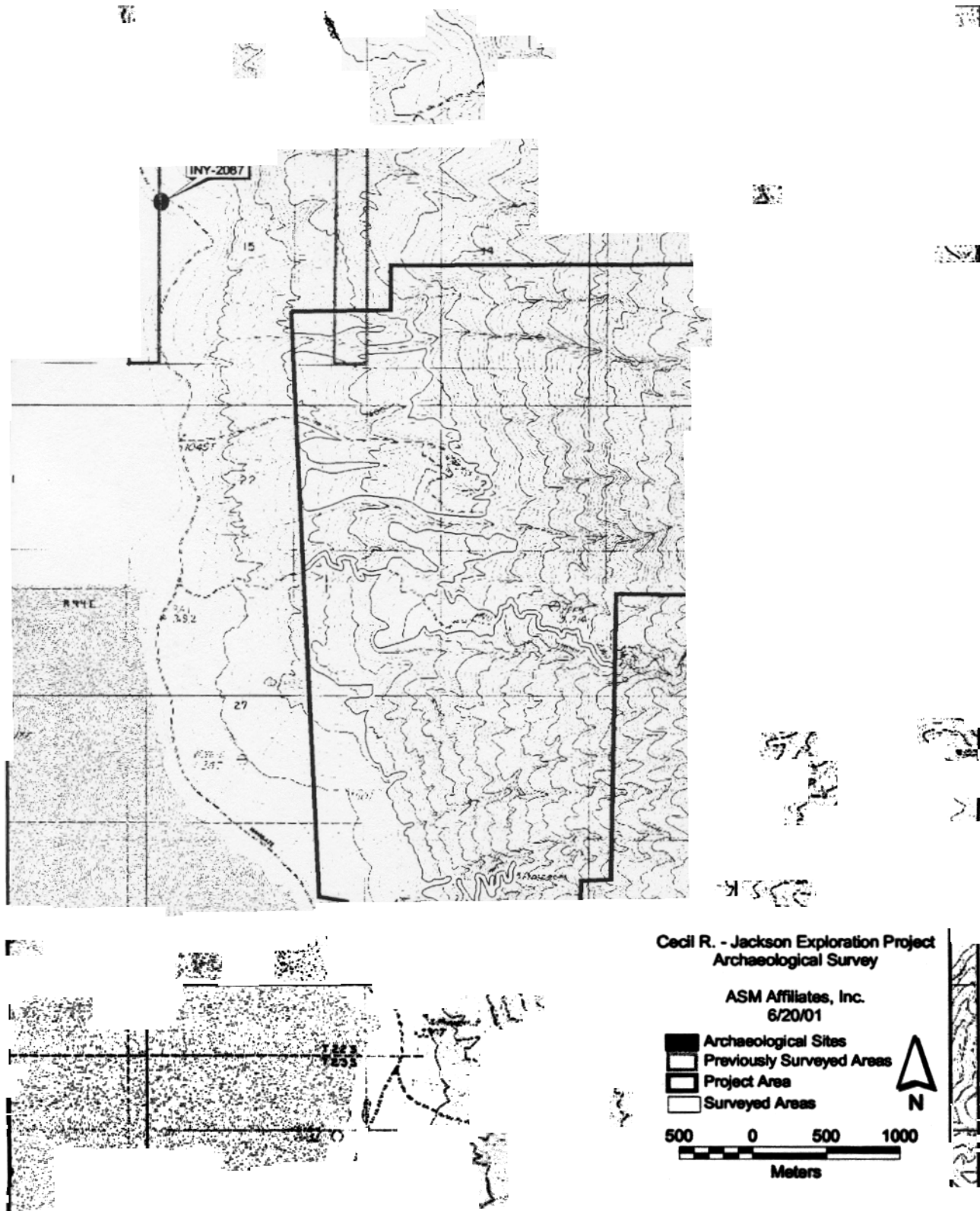


Figure 2. Project location map.

2. REGIONAL BACKGROUND

This chapter consists of two sections. First, the environmental context of the study area is summarized. This includes a discussion of the physical geography and the distribution of biological resources within this portion of the Great Basin. The second section reviews the prehistoric archaeological background of the Great Basin and the Panamint Basin in particular.

ENVIRONMENTAL SETTING

The Great Basin is a large series of internal drainage systems formed by mountain ranges and basins stretching from the eastern Sierra Nevada and southern Cascade Mountains to the eastern Wasatch Mountains in modern Utah. It is bounded north to south by the Columbia River and Colorado River drainages. The Panamint Valley lies in the southernmost portion of the Great Basin (Figure 3). Panamint Lake rests at an elevation of 316 m (1,037 ft.) above sea level, and the highest mountain in the Panamint Range, Telescope Peak, is 3,368 m (11,049 ft.) high (Grayson 1993). Hydrologically and physiographically, the Great Basin includes the Mojave desert, but biologically the Mojave is a distinct geomorphic unit draining into Lake Manly in Death Valley. However, Panamint Lake also drains into Lake Manly and thus shares the Lake Manly hydrologic unit with the Amargosa and Mojave river systems.

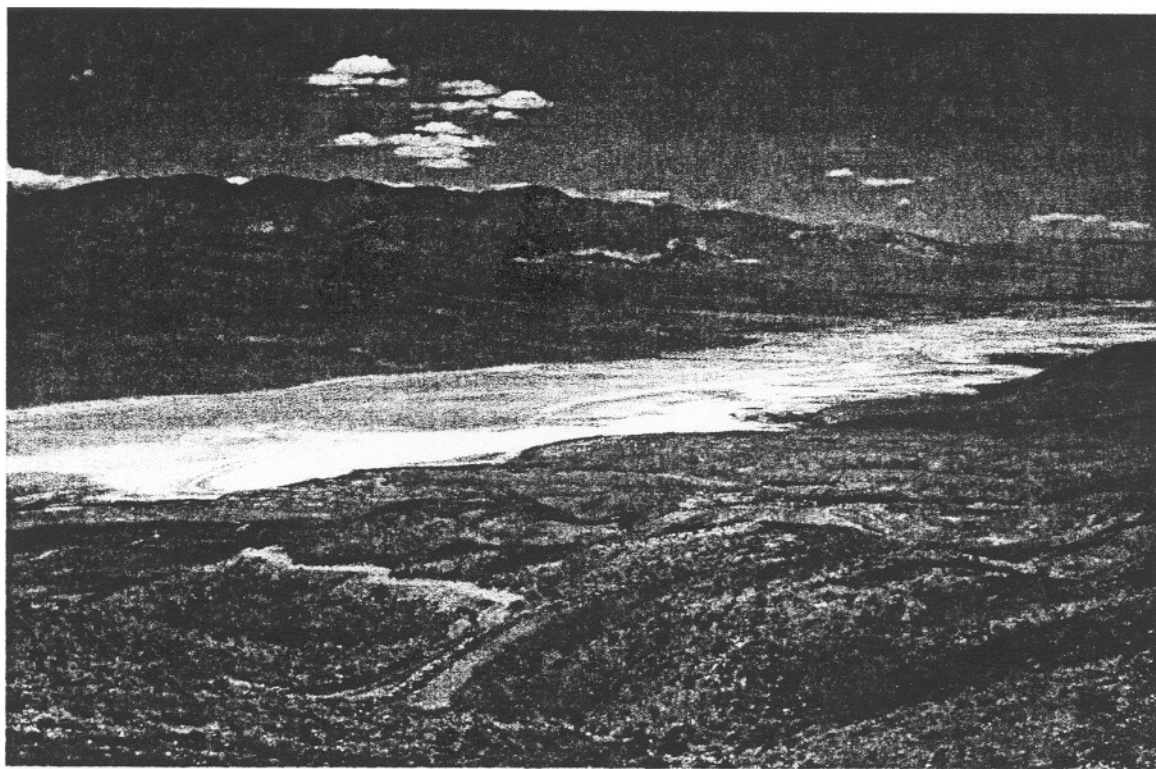


Figure 3. Overview of the Panamint Valley from the project location. View toward northwest.

The Great Basin climate is subarid and evaporation exceeds precipitation, especially in the basins. It is typified by hot summers, cool winters, and a very dry climate. As a result, the availability of water is a crucial factor for human occupation. Rainfall occurs during the winter months (October-March), and usually is less than 20 cm per year. Average low winter temperature is -1°C (30°F) and highs in the summers average 37°C (100°F). Maximum temperatures may reach 48°C (120°F) in lower elevations during the summer. Temperatures vary significantly, however, based on the extreme variability in elevation. Rainfall averages less than 10 cm annually on the valley floor, but winter snows feed saline seeps and springs on the western edge of Panamint Lake.

The Cecil R - Jackson Exploration Project covers 12.9 km² (3,188 acres) of steeply sloping Panamint Range mountainsides, terraces, washes and alluvium. The valley floor contains Panamint Lake. The topography rises sharply up to cut terraces at the piedmont of the Panamint Range, then rising to approach the summits. Mountainside slopes are as great as 50° toward the eastern portion of the project area.

The Mojave creosote bush scrub community is dominated, by creosote bush (*Larrea tridentata*) which covers the vast majority of the study area. This is an open scrub community with creosote bushes standing 0.5 to 3 m tall (Davis and Raven 1986; Holland 1986; Vasek and Barbour 1977). It occurs primarily on well-drained soils, bajadas, and low hills and is rare in highly saline or alkaline soils. The vegetation community is found in abundance below 1,200 m. Steep rocky slopes, washes, dry lake beds are unfavorable habitats. The density of the vegetation varies from moderate on bajadas to low density in rugged higher terrain. Different species tend to co-occur with creosote bush in specific localities, particularly in washes, rock outcrops, and steep slopes. The steeper and higher slopes above 1,200 m contain almost exclusively desert holly (*Atriplex hymenelytra*), a plant known for its ability to thrive in extreme temperatures and aridity.

The general Mojave Desert region is inhabited by a variety of animal species including reptiles, birds, and various-sized mammals. The reptiles include various snakes and lizards, along with the chuckwalla (*Sauromalus obesus*), and the desert tortoise (*Gopherus agassizi*). Bird species characteristic of the creosote bush scrub habitat include black-throated sparrows (*Amphispiza bilineata*), rock wrens (*Salpinctes obsoletus*), common raven (*Corvus corax*), and greater roadrunner (*Geococcyx californianus*).

The majority of the mammal population is comprised of small rodents. Small mammals are primarily represented by black-tailed jackrabbit (*Lepus californicus*) and whitetail antelope squirrels (*Ammospermophilus leucurus*). Larger-sized mammals include badger (*Taxidea taxus*), bobcat (*Felis rufus*), coyote (*Canis latrans*), desert kit fox (*Vulpes macrotis*), and Nelson's bighorn sheep (*Ovis canadensis nelsoni*). Mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocarpa americana*) also may have inhabited the region in the recent past although they are locally extinct.

PREHISTORIC CULTURAL CONTEXT

This background section is not intended to be an exhaustive examination of the region, but instead the objective is to provide a short overview that places this research project in a regional historical perspective. Archaeological references, including specific sites, are interjected only to buttress particular points, generally those relevant to the topics under consideration in this study. Equal attention is given to unpublished reports, published articles, and the occasional published report, since much of the region's archaeology is often classified inappropriately as "gray literature" (Sullivan 1992). New insights and good scholarship are independent of whether or not an ISBN number is attached to a research project's report, and most of the archaeology conducted in the western United States is written as agency reports. The overview draws extensively on major reports and syntheses of the region and those interested in more detailed discussions of the Mojave Desert's archaeology should turn their attention to these works (particularly Everson and Schneider 1994; Sutton and Warren 1988; Warren 1980, 1984; Warren et al. 1986). The following summary of prehistoric occupation encompasses the Great Basin as a whole. Given that all of the inventoried sites in the project area relate to historic mining operations, the reader may wish to bypass the review of prehistoric archaeology and proceed directly to the historic cultural context, below.

Several chronologies have been proposed for portions of the Great Basin and the Mojave Desert (e.g., Bettinger and Taylor 1974; Campbell 1936; Davis 1970; Rogers 1939; Sutton 1996; Wallace 1962; Warren 1984; Warren and Crabtree 1986). No regional chronology has met with full acceptance, and the most prominent are those proposed by Bettinger and Taylor (1974), Sutton (1996), Wallace (1962), and Warren (1984) (Table 1). Overall, there is congruity between chronological sequences with respect to the major temporal units. The key points of contention entail dating the transitions between temporal units, particularly with respect to the onset of the region's prehistory, and the precise duration of occupation phases prior to 3200 B.P. (Warren and Crabtree 1986). This study uses the chronology of Sutton (1996) to structure discussion.

Table 1. Prominent Holocene chronological sequences for the Mojave Desert

Sutton (1996)	Warren (1984)	Bettinger and Taylor (1974)	Wallace (1962)
Late Prehistoric (1000 B.P. - Contact)	Protohistoric (A.D. 1200 - Contact)	Marana (A.D. 1300 - Historic)	Prehistoric Shoshonean and Yuman (A.D. 1000 - Historic)
Rose Spring (2000 - 1000 B.P.)	Saratoga Springs (A.D. 500 - 1200)	Haiwee (A.D. 600 - 1300)	Amargosa (A.D. 1 - 1000)
Gypsum (4000 - 2000 B.P.)	Gypsum (2000 B.C. - A.D. 500)	Newberry (1200 B.C. - A.D. 600)	Pinto Basin (3000/2500 B.C. - A.D. 1)
Pinto (7000-4000 B.P.)	Pinto (5000 - 2000 B.C.)	Little Lake (4000 - 1200 B.C.)	No evidence (5000 - 3000/2500 B.C.)
Lake Mojave (ca. 10,000-7000 B.P.)	Lake Mojave (10,000/8000 - 5000 B.C.)	Mojave (? - 4000 B.C.)	Lake Mojave (7000 - 5000 B.C.)
Paleoindian (12,000-10,000 B.P.)			
Pre-Projectile Point (pre-12,000 B.P.)			

Pleistocene Occupation

The currently accepted model for human occupation of the western hemisphere is that humans entered the continent between 12,000 and 15,000 B.P. (Meltzer 1993). The antiquity of human occupation in the New World, however, has been the subject of considerable hemisphere-wide debate over the last two decades and a number of sites have been suggested as representing very early occupation of the Americas. Despite such intensive interest and a long history of research into the early occupation of North America, no firm, widely accepted evidence dating prior to 15,000 B.P. has emerged. This state of knowledge stands in stark contrast to Australia where 30 years of less intensive research have yielded an extensive body of evidence for occupation dating back to pre-40,000 B.P. (e.g., Jelinek 1992).

While there is no firm evidence of Pleistocene human occupation in the Great Basin, the possibility has intrigued a number of investigators (e.g., Davis et al. 1980; Moratto 1984). Pre-terminal Pleistocene occupation of the general Mojave region has been suggested based on the presence of weathered surface material typically characterized by a crude flaking technology. One of the most vocal and controversial proponents was the late Louis Leakey, who proposed very early occupation based on the Calico site in the Mojave Desert (Budinger 1983; Leakey et al. 1972). Other localities of proposed pre-terminal Pleistocene occupation include localities at China Lake (Davis 1978a,b), Manix Lake, and Coyote Gulch (Simpson 1958, 1961), and Manly Terrace in Death Valley (Clements and Clements 1953). Strong evidence is currently lacking that the objects recovered from these sites are manufactured by humans and that these objects indeed date prior to 12,000 B.P. or are directly associated with such Pleistocene deposits (see Haynes 1969; Jelinek 1992; Wallace 1962; Warren 1980). Certainly there are many portions of the Great Basin with exposed Pleistocene-aged surfaces which would have been ideally suited for human occupation (Kaldenberg 1981). These surfaces, as well as related buried horizons, particularly around ancient lakes, are the most likely context in which earlier occupation may still be preserved. Recent pre-Clovis finds in the South America will no doubt stimulate new efforts to find secure well documented Pleistocene human occupational horizons in the Mojave Desert.

Paleoindian occupation, a wide-spread phenomena throughout North America, is poorly documented in the Great Basin (Sutton 1996). At present, there are no well-dated sites in the Mojave that fall within this time period, and occupation is based on the presence of fluted (Clovis) points. Such points have been recovered throughout the Great Basin and Mojave Desert, but generally as surface finds (Basgall and Hall 1992, 1994a,b; Davis 1978a,b; Warren and Phagan 1988).

Lake Mojave Period (ca. 10,000-7000 B.P.)

The earliest accepted period of human occupation in the Mojave Desert is tentatively dated from about 12,000/10,000 to 7000 B.P. (Sutton 1996; Warren 1984, 1994). The Lake Mojave cultural complex was originally distinguished at a series of sites along the shorelines of ancient Lake Mojave in the central Mojave Desert (Campbell et al. 1937). Lake Mojave encompassed modern Silver and Soda lakes directly to the southeast of Fort Irwin. Absolute dates on stratified

occupation horizons from this time period are infrequent (Apple and York 1993; Davis 1978a,b; Warren and De Costa 1964; Warren and Ore 1978), and the onset and termination of this period are not fully clarified.

Overall in the Mojave Desert, Lake Mojave period sites are relatively infrequent and often ephemeral. They are characterized by a well-developed lithic industry with long-stemmed points typically termed Silver Lake and Mojave points, large bifaces, crescents, large flake and core scrapers, choppers, scraper-planes, and hammerstones (see Campbell et al. 1937; Warren and Crabtree 1986). Ground stone was not considered a principal component of Lake Mojave period assemblages until recent fieldwork on Fort Irwin, notably at the Awl Site (Basgall and Hall 1993a; Basgall et al. 1988; McGuire and Hall 1988).

The relationship between the Lake Mojave sites and the Paleoindian Fluted Point Tradition is unclear at present. The correlation of many Lake Mojave period sites with lakeshores, marshes, and stream channel contexts led Bedwell (1970) to propose the term Western Pluvial Lakes Tradition to characterize a hunter-gatherer adaptation oriented around lacustrine resources (see also Warren 1994). Others have suggested a more generalized foraging economy focusing on large fauna and some plant collecting, with lakeshore occupation just one component of a broader system (e.g., Basgall and Hall 1992; Davis 1978a,b; Wallace 1962; Warren and Crabtree 1986:184).

Recent research at a series of Lake Mojave period sites within Fort Irwin has provided new insights into Lake Mojave period occupation of the central Mojave. Buried sites, such as the Awl Site, with consistent but low quantities of ground stone and a diversified faunal assemblage with few large mammal resources are interpreted as reflecting a generalized foraging subsistence strategy and indicative that only minimal change took place in the subsequent period (Basgall 1993a 1993b; Basgall and Hall 1992, 1994b; Hall 1993). Basgall and Hall (1992:5) suggest that the apparent lacustrine orientation of this period is a construct of site formation processes and the geomorphology of the region—it is the result of where the easily identifiable surface sites are situated. The Lake Mojave settlement pattern was not just focused around well-watered lacustrine localities. Moreover, they assert that the climate of the early Holocene differed little from subsequent periods. This recent interpretation has not met with complete acceptance, particularly with respect to the settlement focus and the degree of climatic change (Byrd 1998; Cleland and Spaulding 1992; Warren 1994, 1998). The drying up of these lakes no doubt had an effect on the distribution of resources and the organization of settlement patterns (Warren 1994: 113-119).

Pinto Period (ca. 7000-4000 B.P.)

This period is defined largely based upon the presence of slightly shouldered, stemmed points with indented bases that are often lumped under the term Pinto (Schroth 1994; Vaughan and Warren 1986; Warren 1984; Basgall and Hall 2000). Associated with these points are leaf-shaped bifaces and various unifacial tools, including thick scrapers and core-cobble tools. Milling bases and handstones are also present. The type site for this period is the Pinto Basin site (Campbell and Campbell 1935; see also Harrington 1957; Rogers 1939). Pinto period sites are typically small

and consist of surface assemblages; buried sites with well-developed occupation deposits are rare. There is considerable disagreement regarding the onset and duration of the Pinto period, in part due to the modest number of available radiocarbon dates (Basgall and Hall 1993b; Hall 1993; Jenkins 1987; Jenkins and Warren 1984; Meighan 1989; Warren 1984, 1994).

Reconstruction of Pinto period settlement patterns has been subjected to a number of interpretations. Warren (1984:413, 1994) suggested that hunter-gatherers of this time frame in the Mojave show continuity with earlier Lake Mojave period inhabitants. This entailed a highly mobile settlement pattern with temporary seasonal camps predominating. Subsistence strategies were generalized, and there was not a well-developed ground stone technology for exploiting seed resources. With the exception of brief wet periods from 6500-5500 B.P. when sites were situated along water courses and dry lake beds, populations were centered around the margins of the desert or at perennial springs (Byrd 1998; Warren 1984, 1994).

Recent, extensive research at Fort Irwin has offered a slightly different and more refined reconstruction of Pinto period occupation (Basgall 1993a; Basgall and Hall 1993a; Hall 1993). Ground stone artifacts were recovered in quantities similar to that noted in subsequent periods. Subsistence patterns appear to have been more diversified, characterized by a greater reliance on plant resources and small animals. Thus, plant seed processing appears to have been an integral aspect of the subsistence pattern along with the extensive use of a wide range of large and small faunal resources (Basgall and Hall 1992:5).

Gypsum Period (ca. 4000-1500 B.P.)

This period witnessed intensified occupation of the Mojave Desert correlated with a broadening of subsistence activities, and possibly the development of new socioeconomic ties with the California coast and the Southwest. This more intensive occupation is reflected in the more abundant Gypsum period material at a few sites such as Gypsum Cave, Newberry Cave, and Rose Spring (Davis and Smith 1981; Harrington 1933; Lanning 1963). Overall, cultural assemblages are quite diverse and reflect generalized technology and mobile subsistence strategies.

Medium- to large-stemmed and notched points (including Elko, Gypsum, and possibly Humboldt series), indicate continued use of the dart and atlatl. Bifacially retouched cores, pressure flaking, and the use of microcrystallines are now widespread, the latter often being non-locally available raw material (Basgall and Hall 1992; Hall and Basgall 1994). A range of other artifact types is present, including shaft smoothers, worked stone objects, ornaments and beads, and, where preservation occasionally permits, perishable materials including atlatl components, sandals, and split-twig figurines (Warren 1984:416). The presence of Pacific Ocean marine shell beads and ornaments provides strong evidence of contact and exchange with coastal areas (Warren 1984:419). The presence of split-twig figurines at sites such as Newberry Cave (Smith 1963) and petroglyphs such as those in the Coso Mountains have been interpreted as aspects of a shared magico-religious system, comprised of a series of elements related to hunting-ritual behavior (Warren 1984:417-418).

The hunting of large mammals (artiodactyls) appears to have been a significant aspect of Gypsum period subsistence, although other smaller faunal remains are well represented (McGuire and Hall 1988:319; Warren and Crabtree 1986:189). Ground stone artifacts are well represented during the Gypsum period, indicating utilization of hard seed resources. These are often small, portable, and formally diverse (Basgall and Hall 1992), and the appearance of mortars and pestles has been interpreted as indicative of the onset of mesquite bean exploitation (Warren 1984:420). Hall and Basgall (1994) observed that Gypsum period settlement patterns are characterized by increased utilization of valley floors and interbasin transportation corridors on Fort Irwin, although most sites appear to have been formed by repeated short stays by mobile hunter-gatherers.

The onset of this period has been correlated with the beginning of the Little Pluvial, and continued well after the end of this moister period (Cleland and Spaulding 1992; Warren 1984:419-420; Warren and Crabtree 1986:189). Cultural developments of this period were made possible by the moister climatic conditions which yielded a greater abundance of plant and animal resources (Warren 1984:420). Others have maintained that the period's paleoclimatic regime was not significantly different from today, and pluvial episodes only improved groundwater conditions and expanded the riparian zones near springs (Basgall and Hall 1992:5). While there is considerable doubt about the cause and effect relationship between climatic change and cultural developments in the Mojave Desert, it is clear that major technological and socioeconomic shifts occurred during the Gypsum period (Hall and Basgall 1994). These changes allowed for continued exploitation of the region, despite a possible return to arid conditions in the latter half of the period.

Rose Spring Period (ca. 1500-1000 B.P.)

This period is characterized by increased regional variation within the Mojave Desert, and potential external influence by Anasazi from the Virgin area and Hakataya from the Colorado River (Warren 1984:420-424). The material culture of this time frame is characterized by smaller Rose Spring and Eastgate series projectile points, presumably used with the bow and arrow (Yohe 1992). Tools became more specialized and were manufactured from a narrow range of locally available lithic sources reflecting more restricted foraging territory focused around local areas (Basgall and Hall 1992:6). Milling stones, mortars, pestles, ceramics, and a variety of ornamental and ritual objects are also well represented. Reliance on the exploitation of plants and small animals increased (Wallace 1988; Warren 1988).

Large sites are first documented during this period. They include Saratoga Springs north of Fort Irwin in Death Valley (Wallace and Taylor 1959) and Oro Grande along the Mojave River (Rector et al. 1983). Unfortunately, other potentially significant sites of this era, such as Afton Canyon, have extensive site disturbance that reduces their interpretive utility (Schneider 1989:19; Sutton and Yohe 1989:145). These sites are often interpreted as "village" settlements, reflecting a shift in settlement organization from a circulating to a radiating pattern in these areas, with temporary camps and processing stations situated around major habitation units (Warren 1984). Other portions of the Mojave appear to have witnessed continued mobile, low density, residential occupation often clustered around springs (e.g., Basgall and Hall 1992; Warren 1988:45).

Trade networks are well documented through the Mojave Desert, and several interpretations have been offered regarding the implications of these trading processes (Lyneis 1982; Warren 1988). These trading networks also appear to have been a factor in the increasing variation between regions within the Mojave Desert. One of the most interesting aspects of non-subsistence decorative goods trade and acquisition entails the nature of Anasazi influence on turquoise mining, particularly in the Halloran Springs area of the central Mojave, and implications for occupation of the Cronese Lakes area (Rogers 1929; Warren 1984:421-422). Whether Anasazi groups, as early as 1400 to 1200 B.P., actually mined for turquoise or simply traded for this resource remains open to differing interpretations (e.g., Leonard and Drover 1980; Rogers 1929:12-13; Warren 1984, 1988:46-48).

Late Prehistoric Period (1000 B.P.-Contact)

This time segment is generally considered to be defined by Desert Series projectile points (including Cottonwood Triangular points and Desert Side-notched points), along with the appearance of ceramics (Warren 1984:424). Major themes in prehistoric settlement of this time period include trade and exchange, the movement of populations (including the Numic spread), and the projection of ethnohistoric groups back into prehistory (Bettinger and Baumhoff 1982; Sutton 1988; Warren 1988). The Anasazi influence appears to decline in the region by 900 B.P. and is replaced by Patayan interaction from the Colorado River (Warren and Crabtree 1986:191). Warren (1984:391) suggests that Colorado River influence is discernible in the eastern portions of the valley, based on the nature of the ceramics.

Ethnohistoric Period

The Kawaiisu occupied the southern Panamint valley south of Ballarat, within the project area, at the time of the first western intrusions in 1776. To the north of Ballarat were the Panamint Shoshone with whom the Kawaiisu maintained amicable relations. This area, however, would have been at the extreme northeastern edge of their territory that was centered on the more optimal habitats in the Sierra Nevada, Paiute, and Tehachapi mountains far to the west (Zigmond 1986:398). Steward (1938:84) remarked that the floor of the Panamint Valley was so low and arid that native populations were extremely sparse. Lack of water precluded the establishment of winter "villages", the closest of which were located in the Panamint and Argus mountain foothills and uplands. The principal village in the northern part of the valley, five miles north of Ballarat but possibly in either Kawiisu or Shoshone territory, was Warm Springs (*Ha:uta*). It was located by a spring in the foothills at an elevation of 335 m (1,100 ft.). Several other springs are located in the uplands where one of their principal staples, pine nuts, could be harvested in the fall. From these locations, forays to lower elevations could be made in the spring to gather seeds and other resources. Tribal boundaries in this area may have been flexible and variable over time, given that it was at the extreme edge of Kawiisu territory.

Most of what we know about the Kawaiisu derives from the efforts of Maurice Zigmond who conducted ethnographic research between 1936 and 1940, returning in 1970-1974, and from which he published seminal accounts on topics ranging from social organization, linguistics, beliefs, and

ethnobotany (Zigmund 1981, 1986). Supplemental information on village locations and land use comes from Steward (1938). The Kawaiisu were the westernmost speakers of the Southern Numic division of the Uto-Aztecan language family. Linguistic evidence suggests the Kawaiisu have occupied their present location for at least the last 2,000 years. It has been suggested that the core of Kawaiisu territory is where both Proto-Numic and Southern Numic spread across the Great Basin (Fowler 1972; Zigmund 1986:399). Like their territory, cultural practices show a confluence of typical California and Great Basin patterns. In this regard they are culturally similar to the Tubatulabal and Foothill Yokuts. For example, Kawaiisu basket makers developed a unique variant of the coil method not seen among either California or Great Basin artisans. Like many Great Basin peoples, social and political units were basic, with small band-like communities of related families who cooperated in subsistence activities. Like California groups, however, acorns were an important staple within their principal residential areas in the Tehachapi and Paiute mountains. Acorns were not always reliable and a wide range of plants and animals contributed to their diet. Families ranged far into the Mojave Desert, including Panamint Valley and surrounding the mountain ranges, for the seasonal resources they afforded, including seeds, roots, and pine nuts. A wide range of animals were hunted with bow and arrow, nets, traps, snares, and deadfalls. Deer meat was much valued but rodents, birds, insects, and reptiles were commonly eaten. Wild tobacco was used for ceremonial and recreational purposes. It was one of the only plants that was carefully husbanded by pruning and weeding.

Conflicts with white settlers arose from allegations of Indian cattle rusting and "stealing" of Indian women by Euro-americans. A massacre of 35 unarmed Kawaiisu Indians in 1863 was symptomatic of their decline. All aspects of traditional life had disappeared by the 1960s and only 30 Kawaiisu who could be identified by language remained by 1984. No reservation exists for them and they have ceased to be recognized as a tribal entity (Zigmund 1986:410).

HISTORIC CULTURAL CONTEXT

The Panamint Valley is an area explored relatively late in the culture history of Anglo-Americans. John C. Frémont led the first exploration and description of the Great Basin in 1843 under the auspices of Thomas Hart Benton, a senator from Missouri (Grayson 1993). Fremont, accompanied by Kit Carson, traveled south to the Bear River and reached the Great Salt Lake in late summer. They continued along the northern portion of the Great Basin along the Snake River toward modern southeastern Washington. Although Fremont's expedition missed the Panamint Valley, it opened a route toward further exploration of the Great Basin, starting with the Mormon settlement of the Great Salt Lake in 1847. He also began to name many places along his route. In December of 1843 Fremont and his men made their way south and east, crossing the 42nd parallel and reaching Pyramid Lake in Nevada on January 10, 1843. From here they headed west along the Truckee River to the eastern Sierra Nevada, and in spring they reached Sutter's Fort along the American River in California. On his return trip, Fremont and his men headed south. They returned to St. Louis via the Old Spanish Trail, traveling through what was then Mexican California, reaching the Mojave River near modern Victorville and Bitter Spring. They passed

through the Virgin River Gorge and northward to the Sevier River and Utah Lake. Finally, they turned eastward and headed back to St. Louis.

Death Valley was first visited by Anglo-Americans in 1849 during the great Gold Rush. A wagon train of emigrants led by Jefferson Hunt reached Death Valley in December of 1849. They split upon reaching the valley after disagreements on the appropriate route the party should take. The group choosing the westerly route, known as the Jayhawkers, eventually made their way over Emigrant Pass to Panamint Valley, then south to Searles Lake. The party choosing the southern route, known as the Bennett-Arcane Party (Hunt 1975) or the Manly Party (Norris and Carrico 1978), intersected Furnace Creek Wash. Eventually, two members of the southern party, William L. Manly and John Rogers, crossed the southern Panamint Range to Searles Lake and found a route to Sacramento. Theirs is the first account of the Panamint Valley, and their exploration opened the route to later travelers.

At the same time the Jayhawkers and Bennett-Arcane party were struggling through the harsh Death Valley environment, the Old Spanish Trail saw a sharp increase in traffic from gold-seeking Forty-Niners (Norris and Carrico 1978). The Mojave Trail also saw an increase in use.

Initial mining and railroad impacts occurred during the period following initial exploration of the southern Great Basin (1868 through 1885). Throughout the southern Great Basin Desert, prospects were being discovered which paved the way for post-1849 prosperity in an otherwise harsh environment. The first great mining discovery was the Cerro Gordo Mine on the eastern side of the Owens Valley in 1865. The Cerro Gordo saw its initial activity in 1868 and soon an aerial cableway was constructed to move ore from the steep mountain slopes to the valley floor (Norris and Carrico 1978). Cerro Gordo attracted so many miners and investors that it developed interest in the surrounding mountains.

Despite its inaccessible location, the huge silver strike of Panamint in Surprise Canyon was discovered in either 1872 or 1873 (Norris and Carrico 1978, Norwood et al. 1980). It saw its greatest activity in 1874 as a rush of over 1000 miners erected a town which lasted only until 1876. The exploitation of mineral riches in Panamint was facilitated by a government funded road constructed through Surprise Canyon up to Panamint. Panamint City became infamous for its violence. Stagecoach robberies were so frequent that the Wells Fargo Company decided not to serve Surprise Valley. The founders of Panamint, John Percival Jones and William Morris Stewart, were said to have bought their mine claims from known outlaws. The town saw its greatest economic boom in 1874 and 1875, but rapidly declined as the cost of operations and goods soared while the returns on mining declined. In 1876 the notorious town was washed down Surprise Canyon in a tremendous summer storm of biblical proportions.

Early settlers not only sought silver, tungsten, lead, and gold, but also salts from the desert lakes. Some of the most famous salt mining operations were the Harmony Borax Works and the Amargosa Borax Works in Death Valley. They both harvested borax from Lake Manly between 1883 and 1888. Major routes from the Harmony Borax Works to Mojave, California passed through Wingate Pass, on the southern end of the Panamint Mountains.

After the mining period of 1868 -1885, ore extraction became less important as homesteaders settled other areas of the Mojave Desert and the Great Basin and railroads to other parts of the desert facilitated exploitation of mining interests to the south and through Owens Valley. In 1897 the town of Ballarat was founded near Post Office Spring to serve mining operations in Pleasant Canyon such as the Radcliffe Mine and World Beater Mine. It most likely also served the Cecil R , Shooting Star (or Shooting Lode) and Comet Mine claims, which are noted on historic maps and were recorded as a part of this survey. Ballarat survived for about twenty years, and its ruins still stand on the eastern edge of Panamint Lake. BLM records indicate the Shooting Star mine and related Scotchman Mill Site in the South Park Mining District were patented on April 17, 1911 by the Ballarat Gold Mining Company (On file, BLM, Ridgecrest Field Office.) This date conforms well with the date of the earliest artifacts discovered in this area.

Between 1900 and 1940 the southern Great Basin and Mojave Desert saw continued mining operations, development of highways and the formation of Death Valley National Monument in 1933. Mining operations in the Panamint Mountains are still active, and in the case of the CR Briggs Corporation, have evolved into large open pit mining operations for lower grade ore.

3. FIELD METHODS

This chapter discusses previous research conducted in the project vicinity, results of a record search conducted at the Eastern Information Center, and field methods employed during reconnaissance of the Jackson Exploration Project.

RECORD SEARCH RESULTS AND PREVIOUS RESEARCH

A records search was conducted at the Eastern Information Center at the University of California, Riverside before the pedestrian survey. Maps of previous survey areas and previously recorded archaeological sites were checked within 1.62 km (1 mi.) of the Jackson Exploration Project. Historic maps of the vicinity were checked as well. Two previous surveys had been conducted within the project vicinity: pedestrian survey for the Bureau of Land Management (BLM), the results of which are published by Norwood et al. (1980), and a BLM cultural resources inventory report of changes to Suitcase Mine, located high in the mountains up South Park Canyon. The survey by Norwood et al. (1980) was one of many studies conducted in preparation for the BLM California Desert Conservation Plan. They provide a good overview of the environment, prehistory as known up to that time, ethnography, and history of the region. In addition, Norwood et al. conducted surveys in 1976-1977 within an aligned systematic stratified random sample based on environmental zones.

Historic maps revealed some mining activity prior to 1950. On the USGS Manly Peak, CA 15' quad, an aerial cableway and mine appear in the vicinity of the Shooting Star and Comet mine claims, which were later investigated and recorded as historic sites during this survey. As previously mentioned, BLM records indicate these mines were patented in 1911.

FIELD METHODS

ASM Affiliates performed a Class III cultural resource survey of the project location using one field crew of four persons. They surveyed the area between June 6 and June 10, 2001. The

topography of the Cecil R - Jackson Exploration Project survey area presented difficult terrain and limited a complete pedestrian survey. Three methods were used to search for and verify archaeological resources in the project area: pedestrian survey of areas less than 20° slope, vehicular and pedestrian survey of roadsides, and remote viewing of the mountainsides for evidence of mines, trails or machinery.

Pedestrian Survey

The pedestrian survey covered three types of areas with specific geographical characteristics. First, undisturbed desert floors, in this case colluvial fans at the base of the Panamint Mountains, were covered in the southern portion of the project area using linear transects no greater than 20 m wide. Second, bajadas and terraces, often with slopes approaching 20° were covered, also with transects no greater than 20 m wide. Third, washes and canyons were surveyed to the extent possible and checked specifically for historic adits and prehistoric and historic artifact caches. Pedestrian survey covered 2.7 km² or 22.5 percent of the total area of 12.0 km² (see Figure 3).

Vehicular Survey

Three unnamed roads intersect the survey area. All of these roads were constructed for access to mines further up the mountains. The northernmost road leads to the Cecil R2 mine claim, recorded as site INY-5943H. It also has offshoots leading to other shafts, adits and modern test bores. The central road leads to Suitcase Mine, recorded in 1998 by BLM archaeologists. Suitcase Mine is well outside of the project area, and although isolated cans lightly litter the bajadas and road sides, no can dumps or camps were located along this road. The southernmost road appears to have been constructed for the Shooting Star mining complex recorded as sites INY-5938H, JEP03, INY-5941H, and INY-5942H.

Spot-checking

In addition to intensive survey, the mountainsides were scanned with binoculars for evidence of mining activity in otherwise inaccessible locations. None were found.

Reason for Lack of Prehistoric Resources

No prehistoric resources were found in the Cecil R - Jackson Exploration Project area. Although prehistoric Native Americans undoubtedly accessed the area for some resources, it may never have been a populated or heavily used location. The project location lacks several attributes which appear to make a location useful. Notably, the area lacks vegetation (and the ubiquitous desert holly, *Atriplex hymenelytra* indicates that water is absent, even by Great Basin standards), contains steep slopes and difficult terrain, and lacks routes to springs in the upper elevations of the Panamint Range. Pleasant Canyon, Surprise Canyon, and Goler Wash would have provided access to perennial springs, and routes to those locations would not have passed through the Jackson Exploration Project.

5. SIGNIFICANCE ASSESSMENT AND RECOMMENDATIONS

None of the sites in the project area are evaluated as significant and therefore are not eligible for the National Register of Historic Places. This evaluation is based on the criteria set forth for compliance with the National Historic Preservation Act (NHPA).

REGULATORY BACKGROUND

Section 106 of NHPA requires Federal agencies to take into account the effects of their undertakings (projects), licensed or executed by the agency, on historic properties listed or eligible for listing in the National Register, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (16 U.S.C. 470f). The Section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the Agency Official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

The Section 106 process includes the following steps:

1. Identify and evaluate the National Register eligibility of historic properties
2. Assess the effects of proposed action on any historic properties
3. Consult with the SHPO, interested parties, and when appropriate, the ACHP
4. Treat impacts, as necessary, and
5. Proceed with the action

On May 18, 1999, the ACHP published amendments which replaced the previous regulations in order to implement the 1992 amendments to NHPA. These amendments improved and streamlined the regulations in accordance with the Administration's reinventing government initiatives and in response to public comment (36 CFR Part 800; 64FR 27044-27084). The 1999 amendment modifies the process by which Federal agencies consider the effects of their undertakings (including projects, activities, and programs) on historic properties and provides the ACHP with a reasonable opportunity to comment with regard to such undertakings, as required by Section 106 of the NHPA. The new rules also sought to better balance the interests and concerns of various users of the Section 106 process through early and substantive consultation with Federal agencies, State Historic Preservation Officers (SHPOs), Tribal Historic Preservation Officer (THPOs), Native Americans and Native Hawaiians, industry, and the public.

In response to a lawsuit by the National Mining Association that challenged the 1999 rule, the ACHP published a final rule on December 12, 2000, to be final on January 11, 2001 (36 CFR Part 800; 65FR 77698-77739). The final rule retains all the hallmarks of the original 1975 rule

- (D) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Other considerations that effect National Register eligibility include Native American heritage and religious values, and potential for public interpretation. More specific application of these criteria to mining sites is provided by Noble and Spude (1992) and Hardesty (1988, 1990).

With these criteria in mind, all of the sites are evaluated as not significant. Sites INY-5940H and INY-5943H from the Cecil R 2 Mine contain materials that are a mix of different periods, all of which are relatively recent. None date earlier than the 1940s and most of the material is less than 50 years old. This late date precludes National Register eligibility (Noble and Spude 1992:18). The ore hopper and sluice box also appear to be relatively recent which may explain why they are still in their original position. None of this equipment represents well preserved or exceptional examples of mining technology, nor do the adits at these sites represent unique or exceptional examples of this type of mining operation. The sites have no research potential to expand our knowledge of how mining technology was applied to this isolated and what must have been a small and marginal operation.

Sites INY-5938H, JEP03, INY-5941H, and INY-5942 are associated with the Shooting Star Mine and Scotchma Mill Site, patented on April 17, 1911 (Document 0248, BLM, Ridgecrest Field Office). The sites are all part of the same operation whereby a cable tramway hoisted equipment to a series of adits on the upper slopes and transported ore back to the bottom where it could be processed or removed. A portable stamp mill was reused elsewhere once the ore bodies played out. As a result, nothing of the mill remains; not even a concrete foundation. Remains of the tramway still exist but lack integrity. Two trash dumps remain at INY-5942H and trash is scattered across the sites. The artifact dates conform to the period between the 1911 patent date and a closing date not later than 1920. More probably, the mining operation probably stopped by the beginning of World War I.

Metal cable tramways were commonly used in mining operations with difficult access (Young 1970:193). They made it possible to profitably mine steep, mountainous areas. The development of wire cable or "rope" as it is technically called, goes back to 1840 with the invention by John A. Roebling, builder of the Brooklyn Bridge. Its application for western mining is attributed to Andrew Smith Hollidie, who first introduced wire rope to the Mother Load region in 1856 for a suspension bridge (Bailey 1996:115-126). His factory in San Francisco continued to manufacture rope for that purpose through the 1860s. In 1869 he patented the Hallidie Endless Wire-Rope-Way, a tram system for hauling ore and supplies up mountainsides. Iron or steel ropes were supported on sheeves placed on posts. The system was actuated by the gravity of the descending load or by an engine attached to a grip pulley. The carriers or ore buckets were placed at regular intervals. Key to the system were brake drums of a diameter equal to that of the bull wheel. The same system was employed to run San Francisco's cable cars. In the 1890s this system was replaced by the German engineered Bleicher and Co. tramway. The example at the Shooting Star Mine, however, is not a well-preserved, unique, or particularly representative example of this application. Not enough remains to positively identify the type of tramway although it is likely

and the major streamlining improvements of the June 1999 amendments. The changes primarily removed operational impediments and clarified certain provisions and definitions. The final rule:

1. clarifies the roles of SHPOs, THPOs, and Tribes;
2. provides more flexibility for involving groups of applicants;
3. clarifies an undertaking to include only an action that has the potential to affect historic properties;
4. reinforces a Federal agency's responsibility to identify historic properties;
5. revises the role of invited signatories to MOAs;
6. clarifies the actions a Federal agency must take in mitigating adverse effects stated in EIRs
7. redefines the role of the Advisory Council for improving Section 106 operations;
8. modifies documentation standards to be limited to an agency's legal authority and available funds;
9. adds requirements for agencies to provide information on National Register eligibility of post-review discoveries;
10. provides for a routine prototype programmatic agreements;
11. improves stakeholder and public views on proposed exemptions; and
12. reemphasizes agency obligations for Native American consultation while acknowledging agency responsibility for determining the method of consultation.

The Section 106 process has also been streamlined through a protocol between the California BLM and the SHPO. It allows BLM to forgo SHPO consultation for routine compliance proceedings.

SIGNIFICANCE CRITERIA AND EVALUATION

The criteria for determining eligibility for the National Register of Historic Places revolve around evaluating the "significance" of the property, stated as:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

that are associated with events that have made a significant contribution to the broad patterns of our history; or

(B) that are associated with the lives of persons significant in our past; or

that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

based on the Bleicher system. Limited research potential is also attributed to the trash dumps. They could provide some additional information about foodways on the mining frontier (see Conlin 1986) but the sample size is too small to derive meaningful inferences. More significant inferences could be made if the trash dumps were associated with specific households, neighborhoods, or commercial establishments that would be found at larger mining camps. These dumps are associated with the few anonymous workers who operated the mine.

RECOMMENDATIONS

No further treatment of these cultural resources is recommended because they do not meet National Register criteria of eligibility. A permanent record of these sites exists at the Eastern Information Center, with submittal of Archaeological Site Records.

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**NATIVE AMERICAN CONSULTATION
STUDY FOR THE
CECIL R. JACKSON
GOLD EXPLORATION PROJECT**

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ABSTRACT

At the request of the U.S. Bureau of Land Management (BLM), Tierra Environmental Services (Tierra) conducted a Native American consultation study with the Timbisha Shoshone to determine if any significant cultural resources were located with the proposed Cecil R. Jackson Gold Exploration Project area. The study was conducted in support of the preparation of an Environmental Assessment for the proposed project, and also to assist the BLM with its responsibilities for compliance with Section 106 of the National Historic Preservation Act.

The proposed project would disturb approximately 100 acres over a 3,000-acre site. The purpose of the exploration program is to expand known mineralized deposits and to explore and develop exploration targets which lie between and adjacent to them. The proposed project is located in Inyo County, California near the southern end of the Panamint Range, and is centered approximately three miles south of Ballarat, 18 miles northeast of Trona, and 36 miles northeast of Ridgecrest. The proposed project site is located about two miles north of the existing Briggs Mine.

The Native American consultation study was conducted by Dr. Michael Baksh, Principal Anthropologist of Tierra Environmental Services. The study included a literature review and several meetings with representatives of the Timbisha Shoshone Tribe on August 7, 2001, March 13, 2002, and March 14, 2002.

No specific cultural resources (e.g., camps, springs, trails, burials, placenames, harvesting areas, rock rings, archaeological sites) were identified within or immediately adjacent to the proposed project site. Several very important places are known in the project vicinity, but the closest are located at a distance of a few miles and would not be directly or indirectly impacted by the proposed project. However, the Timbisha feel that the proposed project itself is located on an extremely important cultural resource, the Panamint Mountains, which they feel to be a sacred mountain range. They also described concerns that the proposed project would result in significant visual aesthetic impacts. The Timbisha feel that no appropriate mitigation measures can be developed.

I. INTRODUCTION

The proposed Cecil R. Jackson Exploration Project (proposed project) consists of the exploration by the CR Briggs Corporation (CR Briggs) of a new area in the Panamint Mountains for potential gold mining. At the request of the U.S. Bureau of Land Management (BLM), a Native American consultation study was conducted in the effort to determine if any Traditional Cultural Properties (TCPs) or other cultural resources of significance to the Timbisha Shoshone are located in the proposed project area. The Native American consultation study was conducted in support of an Environmental Assessment for the proposed project, and therefore was conducted in compliance with Section 106 of the National Historic Preservation Act.

A. Project Description and Location

The proposed project site consists of approximately 3,000 acres on land managed by the BLM. Approximately 100 acres of this area would be disturbed for the new exploration. The purpose of the exploration program is to expand known mineralized deposits and to explore and develop exploration targets which lie between and adjacent to them.

The proposed project site is located in Inyo County, California (Figure 1), near the southern end of the Panamint Range in portions of Sections 13, 14, 15, 23, 24, 25, 26, 34, and 35 of in T.22S., R.44E., of the Manly Fall and Ballarat, California USGS 7.5' quadrangles (Figure 2). The project site is centered approximately three miles south of Ballarat, 18 miles northeast of Trona, and 36 miles northeast of Ridgecrest. The proposed project site is located about two miles north of the existing Briggs Mine, which commenced operations in 1995. Briggs is currently permitted for 500 acres of disturbance within the existing 2,000-acre mine area, and has reserves for approximately two more years.

The current proposal calls for the construction of a series of new roads and drilling within several 300 x 300 foot pads. Drilling would be conducted to an average depth of 300 feet, and would be capped upon completion with cement and rebar. Upon completion of the exploratory activities, the roads and drill pads would be re-contoured to the extent practicable, and reseeded. If the drilling delineates potentially fineable resources, CR Briggs will submit a Plan of Operations to the BLM for the development of the reserve.

An archaeological survey was conducted of the project site by ASM Affiliates in 2001. The survey identified historic resources (e.g., associated with historic mining), but did not identify any prehistoric sites (Judyth Reed, Personal Communication). At the request of the BLM, CR Briggs commissioned Tierra Environmental Services (Tierra) to conduct a Native American consultation study, at the request of the BLM, in the effort to identify any Traditional Cultural Properties (TCPs) or other cultural resources of importance to Native Americans traditionally affiliated with the project area.

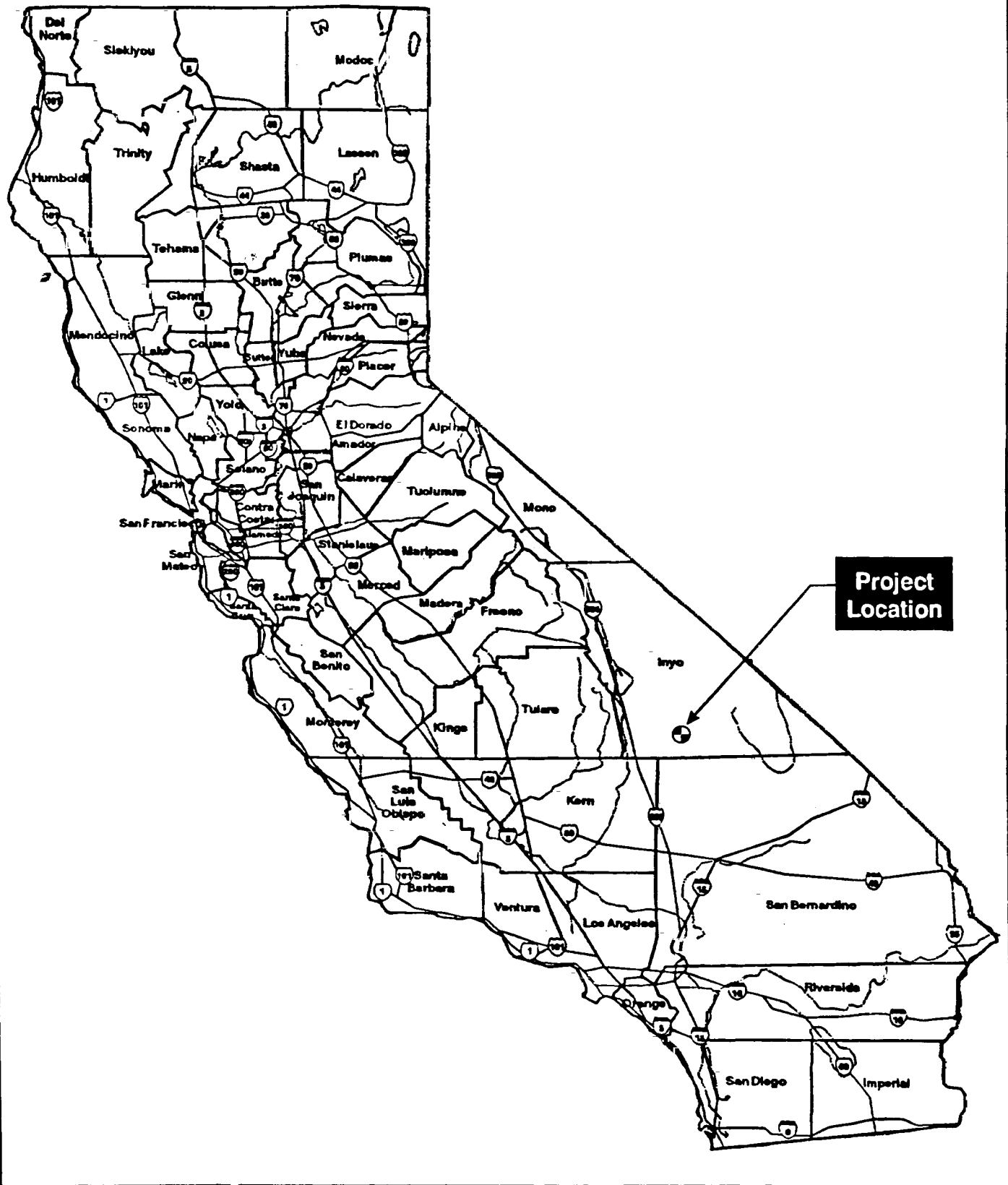
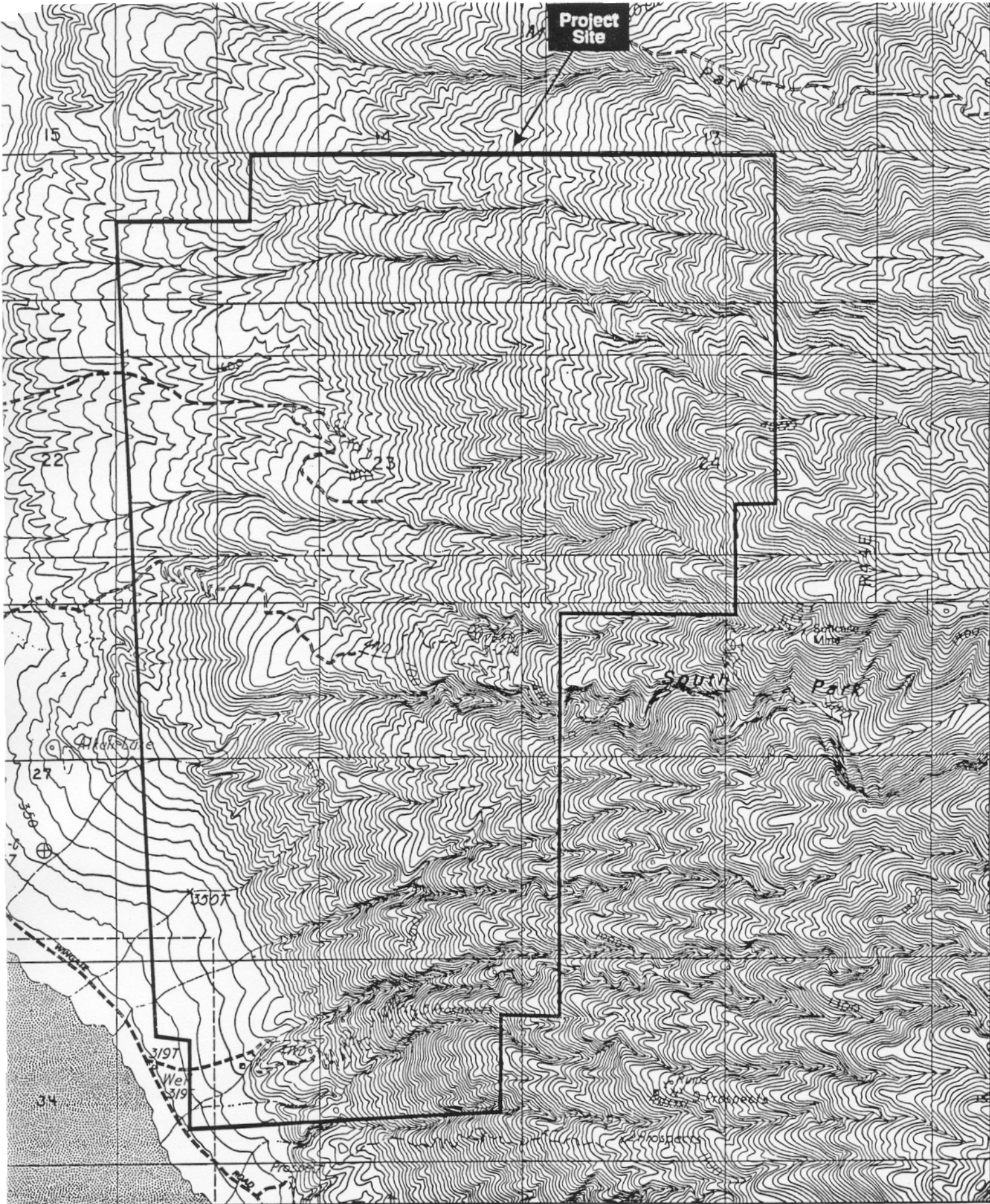


Figure 1
Regional Location Map





Maps - Manly Fall and Ballarat, CA

Figure 2
Project Location Map



B. Study Objectives

The major goals of the Native American consultation program were to identify any cultural resources in the project area and to document Native American knowledge regarding the function, meaning, and significance of those resources. A related goal was to identify any other Native American concerns and values associated with the project area.

C. Study Methods

The Native American consultation study by Dr. Michael Baksh, Principal Anthropologist of Tierra. The study included meetings with representatives of the Timbisha Shoshone Tribe on three days. The first set of meetings was on August 7, 2001 with members of the Timbisha Shoshone Cultural Preservation Committee. This committee included Pauline Esteves, Grace Goad, Ken Watterson, and Ed Esteves. The Tribe's Historic Resources Officer, Bill Helmer, was also in attendance. The meetings commenced at Ballarat and included Judyth Reed and other Bureau of Land Management (BLM) representatives, and Chris Eckert and other Briggs representatives. Following a description of the proposed project by Chris Eckert, the group was led by Briggs on a tour of a "main target" within the proposed project area. The group then proceeded to the existing mine area to discuss the project in more detail and review maps. Michael Baksh subsequently met privately with the Cultural Preservation Committee in Briggs conference room.

The second day of meetings was on March 13, 2002 with members of the Timbisha Shoshone Cultural Preservation Committee, which again included Pauline Esteves, Grace Goad, Ken Watterson, and Ed Esteves. Michael Baksh, Judyth Reed, and Bill Helmer were also in attendance. In addition, the meeting was attended by Agnes Sudway (and her husband, Ed Sudway), who had driven from Elgin, Oregon, specifically for the meeting. At the August 7, 2001 meeting, the Cultural Preservation Committee had expressed an interest in including Agnes Sudway in the consultation process, and the March 13, 2002 meeting resulted from arrangements made with her by the BLM. The meeting commenced at Ballarat, and the group then met in Briggs conference room.

Michael Baksh attended additional meetings on March 14, 2002 with the same Cultural Preservation Committee members, as well as Agnes Sudway and Bill Helmer. The group met at the Timbisha Shoshone Tribal Office at Furnace Creek, and then went on a tour to the former Wilson-Billson camp near Eagle Borax where Agnes Sudway lived as a child. Following the tour, Michael Baksh met again with the Cultural Preservation Committee and Bill Helmer at the Tribal Office.

In addition to participating in the meetings described above, Michael Baksh also reviewed ethnographic studies, environmental review reports, and other literature in the efforts to 1) identify the tribal cultural affiliation for the project area and 2) any cultural resources previously documented in or adjacent to the project.

NATIVE AMERICAN CONSULTATION RESULTS

Literature Review

The literature reviewed for this study included Kroeber 1925; Driver 1937; Steward 1933, 1938; Grosscup 1977; Thomas, Lorann, Pendleton, Cappannari 1986; Fowler, Dufort, and Rusco 1995; Fowler, Dufort, Rusco and the Historic Preservation Committee, Timbisha Shoshone Tribe 1995; National Park Service 2000; and Theodoratus, Emberson, White, Conkling, and McLean 1998. The ethnographic literature dating back to the early 1800s places the proposed project site within the overall Panamint Shoshone territory. As summarized by Fowler, Dufort, and Rusco, today's Timbisha Shoshone Tribe "is the primary descendant group representing the whole of what has been called in the anthropological literature "Panamint Shoshone" territory" (1995: 2). The nearest other tribe to the project area was the Kawaiisu, who may have occasionally used land to the immediate south for hunting and gathering according to Kroeber (1925).

The language of the Panamint Shoshone, of which the Timbisha Shoshone is included, is closely related to that of the Western Shoshone. The subsistence practices, social organization, political organization, religious beliefs and practices, and other cultural characteristics have been synthesized by others (e.g., Theodoratus, Emberson, White, Conkling, and McLean 1998), and is not repeated here.

Based on thorough reviews of the ethnographic literature (especially Kroeber 1925; Steward 1933, 1938; and Merriam in Grosscup 1977), and on interviews conducted with Timbisha Shoshone elders and members of the Historic Preservation Committee from 1993-1995, Fowler, Dufort, and Rusco (1995) have identified twelve traditional and cultural use areas within the Timbisha Shoshone tribal territory. The proposed project site is located within their Area 10, identified as Wildrose/Panamint Range/Indian Ranch. Area 10 "includes the Panamint Range from roughly Nemo Canyon on the north to Anvil Spring Canyon on the south. It includes both sides of the crest of the range, down to roughly the 1000 ft. level on the Death Valley side. On the Panamint Valley side, the boundary crosses the valley in the south to include part of the Slate Range; in the north, it includes all of the uplift around Maturango Peak" (Fowler, Dufort, and Rusco 1995:52).

Twenty-one placenames are identified in Area 10. Of relevance, one of these is the Panamint Mountains, kaikottin (Dayley 1989:41). Similarly, "Grosscup (1977:143), citing C.H. Merriam's notes has ki'-goo-tah, ki'-goot; meaning unknown. Steward (1938:95) has Panamint Range Kaigota, Kaiguta" (Fowler, Dufort, and Rusco 1995:99). The proposed project site, located on a portion of the western slope the Panamint Mountains, is included within the area referred to by this placename.

Fowler, Dufort, and Rusco's Area 10 also includes numerous springs, canyons, peaks, camps, and other sites. No specific cultural resource, however, is identified within or adjacent to the proposed project site. The nearest principal winter village on the Panamint Valley side of the Panamint Mountains was at Hauta, or Warm Springs, approximately five miles north of Ballarat. "This site has

since become associated with George Hanson (called Haita Tsoozi), but seemingly was a winter village long before his time (Steward 1938:84).... There are mesquites close at hand, and the marsh formed by the spring had many other types of foods" (Fowler, Dufort, and Rusco 1995:53). Adjacent to Warm Springs is the Indian Ranch property, acquired by George Hanson around 1875. The 560-acre Indian Ranch property was from 1928 to 1958, and is now owned by George Hanson's descendants, including some on the Timbisha's tribal rolls (Fowler, Dufort, and Rusco 1995:56).

The next closest significant places are Johnson Canyon, about 11 miles northeast of the proposed project site, and Warm Springs Canyon, about 9 miles east/southeast. "Allotments were given to ancestors of Timbisha tribal members in Warm Springs Canyon (Panamint Tom, Bob Thompson, his son) and Johnson Canyon (Suzie Wilson/Tim Billson, descendants of Hungry Bill) These sites had extensive gardens and developments dating from roughly the 1840s to 1890s..." (Fowler, Dufort, and Rusco 1995:55). In addition:

In 1907, Panamint or Hungry Bill applied for an allotment of his 160 acre property in Johnson Canyon. This was not affirmed until 1923, due to survey problems. However, Hungry Bill and his wife and children (and other relatives) still lived on the property during part of this time. He died in 1919 and his wife around 1915 (Lingenfelter 1986:485), after which time, his children (two daughters and a son) abandoned the ranch as is Timbisha practice. The ranch remained unoccupied until sometime in the 1930s, when Suzie Wilson and her siblings (Tim Billson and Mabel) began to use it as their summer place. It was sold in 1952, and then through a land transfer to the buyer, acquired by the National Park Service in 1954.... Agnes Sedway and Mary Angie are living descendants, and have visited the property in recent years. Mrs. Sedway is on the Timbisha Tribe's rolls.

In 1934, Bob Thompson, son of Panamint Tom, applied for an allotment of 40 acres of land and water in Warm Springs Canyon, based on his father's and grandfather's habitual use (and the developed gardening cited above). The application was application was approved by Commissioner of Indian Affairs John Collier later that same year... (Fowler, Dufort, and Rusco 1995:56).

Based on a review of the literature, Warm Spring and Indian Ranch, Johnson Canyon, and Warm Springs Canyon are the closest specific places of high cultural significance to the Timbisha Shoshone. It must be remembered, however, that the Panamint Mountains have also been traditionally identified with a placename, kaikottin.

B. Meetings

Several meetings were held with the Timbisha Shoshone Cultural Preservation Committee and the Tribe's Historic Officer, Bill Helmer, on August 7, 2001, March 13, 2002, and March 14, 2002. The meetings on March 13 and March 14 also included Agnes Sudway, a tribal member who traveled from Oregon to participate in the study. Information obtained on important cultural resources associated with the project vicinity, together with other concerns and values, are summarized below.

The information is generally organized under three categories: Proposed Project Site, Cultural Resources In The Project Vicinity, and Panamint Mountains.

Proposed Project Site

The Timbisha representatives did not identify any camps, springs, trails, burials, placenames, harvesting areas, rock rings, archaeological sites, or other specific cultural resources within or adjacent to the proposed project site. Agnes Sudway, who grew up spending winters with her family at camps in the Panamint Mountains, specifically stated that she did not know of anything in the project area, and that she did not think that the project area was used much. However, she emphasized that she did not come through this area as a child when staying in the Panamint Mountains.

The Timbisha stated that burials are located throughout the Panamint Mountains. Because specific burial locations are rarely marked or otherwise known, they feel that the project area could contain burials. The possibility that the proposed project activities could impact human remains is a major concern of the Timbisha.

Although no specific impacts to cultural resources located within or adjacent to the proposed project site were identified through the consultation process, the Timbisha expressed considerable concern for visual impacts. They expressed dismay for what the area would look like, not only after the road-building and drilling activities were completed, but especially during and after any subsequent mining activities, which they are convinced will likely occur following analysis of the exploratory drilling results.

The Timbisha expressed environmental concerns that may be categorized as "cumulative effects," particularly with regard to visual aesthetics. Although the Timbisha did not explicitly state the term "cumulative effects," it was apparent through several statements that they feel the proposed project would result in these types of impacts, even though no direct impacts would occur to specific cultural resources within the project site except to the Panamint Mountains themselves.

It should be noted that cumulative effects are effects on the environment which result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). Cumulative impacts associated with the proposed project would include, in the immediate project area, the existing Briggs Mine and, from the Timbisha's perspective, the likely development of the proposed project site as a mine subsequent to the exploratory drilling. They stated on several occasions that the entire mountain is sacred, and that every new mining project desecrated it further.

Cultural Resources In The Project Vicinity

Cultural Resources in the project vicinity were identified by the Timbisha tribal representatives. Indian Ranch and Warm Springs, as described in Section IIA, were well-known to all. Agnes Sudway spoke of her mother telling her about Indians holding dances near Indian Ranch.

Agnes Sudway and Grace Goad also offered information on other cultural resource locations in the area. Agnes Sudway explained that she was born in 1933 and that her parents were Tom Wilson and Suzie Wilson (maiden name, Billson). She had two brothers, Clyde Wilson and Tom Wilson. They lived on a ranch near Eagle Borax where they spent the winters until her father died in 1949. Her family kept horses at this ranch, where there is a spring, and took them to South Park Canyon in the Panamint Mountains during the summer. Her family used the Colter Spring area in South Park Canyon to keep the horses, until returning to the winter camp. South Park Canyon and Colter Spring are located a few miles directly east of the proposed project site. Agnes Sudway knows of a large archaeological site near a spring in South Park Canyon. She also noted that Thorndike used the spring at this location to pipe water to its mine. Until reviewing maps during meetings on March 13, 2002, she did not know whether her family's summer camp was in the proposed project area or not.

Agnes Sudway also spoke of Johnson Canyon, located on the east side of the Panamint Mountains and northeast of the project site as described above. Her family sometimes traveled to Johnson Canyon, particularly to pick pine nuts, and she knows that there were several burial sites located in this canyon as well as throughout the Panamint Mountains. She said that it was common for men to play games (e.g., stick game) in Johnson Canyon after picking pine nuts. She also referred to a teepee site in Pleasant Valley.

Grace Goad explained that her family used to pick pine nuts down below Wildrose. She said that her mother would pray to the mountain in the morning before going up pick the pine nuts. She said her mother's prayers "were about mountains, animals, plants, food." She said there was an Indian trail into the Panamints, north of Indian Ranch Road and near Wildrose Trona Road. Others stated that there were trails in the various canyon which their people used to cross the Panamint Mountains when traveling between the Panamint Valley and Death Valley sides.

Panamint Mountains

Although the Timbisha have not identified a specific cultural resource within or immediately adjacent to the proposed project site, they feel that the entire proposed project site itself is situated on a highly important place, namely, the Panamint Mountains. They emphasized that Panamint Mountains are more important than, say, a rock shelter or rock ring. As emphasized by Agnes Sudway, "That mountain is sacred to us." She went on to say that "My people used to have prayer meetings in the Panamint Mountains." Those prayer meetings were not just held in one location in the mountains but, rather, many places including on Telescope Peak, on Johnson Peak, and at various springs. Ken Watterson added that the mountain is important for holding ceremonies.

Pauline Esteves similarly emphasized that "The whole mountain range is sacred, the mine shouldn't go any further, the mountain is being desecrated, we don't want it to be desecrated any further." The tribe tried to stop development of the existing mine, but, according to Pauline, "When we protested Briggs, we tried to let them know our feelings but didn't matter." She repeated that "Mining shouldn't be carried on any further," and also stressed that we "oppose the project because they are desecrating the mountain and what we believe in. They believe in going to church, but we believe in going to the mountain." She also stated that "our people were all over that mountain" and that "we feel strong about our mountains," and explained that mountains like the Panamint Mountains are like the "Holy Land." She noted that "Springs and wildlife within mountains are sacred also." Upon being asked to define the term "sacred," she said that she did not have the words to describe "sacred," and that the author of this report would need to be Indian to understand.

Some of the Timbisha stated that everything is alive, even things that do not contain liquid. According to Pauline Esteves, "the mountain is alive.... It doesn't have liquid in it but some things that are alive don't have liquid." She explained that the gold mining activities are weakening the mountain and thereby destroying the ecosystem. Ken Watterson observed that the mountain is "part of the circle of life."

Pauline Esteves lamented that "There are laws that affect various wildlife and habitats," and asked, "But where is our habitat?" She went on to say that the wildlife is protected, and added that "CR Briggs makes themselves sound like they are environmentally-sound for building habitats for bats," but that it is necessary to protect the entire area for cultural reasons as well. "What we believe in is what is alive out there. Our people were out there all over the place. We do not impact these areas. That mountain is a sign of life out there and that is what we believe in," she said.

The Timbisha stated repeatedly that they were afraid that CR Briggs and others want the whole mountain range, and only for monetary gain. In contrast, the tribe explained that the mountain was put there for their spiritual and subsistence purposes, "It was put there for purposes that we believe in and respect," said Pauline Esteves.

Pauline Esteves also added that, "Our responsibility is to take care of things. If they go ahead and destroy this then they do not recognize us as human beings." She concluded the final meeting by stating, "If they are not going to respect anything that we've said - that we are connected with this mountain - and if they go forward with this project, then what? "If they're not going to respect our values, then we'll not respect theirs."

III. SUMMARY AND CONCLUSIONS

Based upon a review of the literature and several meetings with Timbisha Shoshone, no specific cultural resources (e.g., camps, springs, trails, burials, placenames, harvesting areas, rock rings, archaeological sites) were identified within or immediately adjacent to the proposed project site. Several very important places are known in the project vicinity, but the closest are located at a distance of a few miles and would not be directly or indirectly impacted by the proposed project.

Although no specific cultural resources are located within the project site, the Timbisha feel that the proposed project itself is located on an extremely important cultural resource, the Panamint Mountains. They are deeply concerned with the physical devastation of the Panamint Mountains which they believe to be a sacred mountain range. They emphasized on occasion that they want the entire mountain range to be comprehensively studied and that, it would only be through such a study that others would begin to understand its importance. They added that they do not have any funds to conduct the necessary study.

Aside from cultural resource concerns, the Timbisha Shoshone also described concerns that the proposed project would result in significant visual aesthetic impacts.

Finally, it should be noted that the Timbisha Shoshone could not think of any appropriate mitigation that could be developed.

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APPENDIX 4 CUMULATIVE IMPACTS

NOTE: The description of cumulative impacts contained herein have been taken intact from the Final EIS/EIR for the Briggs Project. Within the text there are references to discussion in certain other sections. Those other sections appear in the Final EIS/EIR for the Briggs Project. The Final EIS/EIR for the Briggs Project is available for public review in the BLM's Ridgecrest Field Office, 300 S. Richmond Road, Ridgecrest, CA.

5.4 POTENTIAL FUTURE GOLD MINING AND EXPLORATION SCENARIO

- 1. Except for the Proposed Action, there are no known plans for substantive development of gold mining or exploration in the southern Panamint Range or Panamint Valley area. No proposals, or consideration of such proposals, have been announced. However, to further the cumulative impacts analysis provided in Section 5.3, BLM has developed the gold mining and exploration scenario for the project vicinity that is discussed in is section. BLM has assumed an approximate three year time frame for the definition of "reasonably foreseeable future." In this timeframe, BLM expects a high level of gold exploration activity to take place in the vicinity of the proposed project.**
- 2. Within the next three years, BLM anticipates the potential for one new mine being constructed in the vicinity of the Proposed Action. BLM has estimated that this potential mine would be expected to disturb approximately 120 acres and remove a total of 150 acres from multiple use until reclamation is completed. The potential mine would use about 125 acre feet of water per year, and employ about 35 workers (all assumed to live in Trona, Ridgecrest, and**

surrounding communities). In addition to this potential mine, BLM anticipates that future gold exploration activities would disturb about 50 acres of the western flank of the Panamint Range between Surprise and Goler canyons. These disturbances would be in addition to disturbed areas shown on Table 5.2.

3. The primary cumulative impacts caused by the Proposed Action as well as the potential gold mining and exploration scenario developed by the BLM would be to soils, air, vegetation, wildlife habitat, visual resources, and socioeconomics. The BLM anticipates that key impacts of this gold mining and exploration scenario would be as follows:

- **Soils** - The potential mine would displace large volumes of soil during the mining process. A large percentage of this soil would be stockpiled for use during reclamation.
- **Air** - The primary emission to air from these activities would be particulates (dust). Based on EPA estimates, approximately 0.38 tons of particulate matter are put into the atmosphere each year for each acre of surface disturbance. Assuming no reclamation or stabilization of the mining related disturbance in the three-year period, approximately 47.5 tons of particulate matter would enter the atmosphere (125 acres x 0.38 tons/acre/year). The potential future exploration activity encompassing about 50 acres as described in this scenario would be expected to put about 19 more tons of particulate matter into the atmosphere each year (50 acres x 0.38 tons/acre/year). Interim stabilization, concurrent reclamation, watering, chemically treated access roads, etc. would reduce these levels considerably.
- **Vegetation** - Approximately 125 acres of vegetation would be removed by the potential mine and an additional 50 acres by the potential future exploration. The impacted vegetation community would be primarily creosote bush scrub.
- **Wildlife** - Cumulative impacts would occur directly to mammals, birds and reptiles, with secondary losses to predators of these animals. There would also be small impacts due to fragmentation of wildlife habitat. Impacts on forage availability would be minor.
- **Visual** - Cumulative impacts from exploration and mining activity in the area would result in contrast with respect to natural conditions. Successful reclamation would ultimately limit these contrasts.
- **Socioeconomics** - Mine and exploration personnel associated with the potential future activities would be expected to live in Trona, Ridgecrest and surrounding communities. Overall, socioeconomic impacts of these potential future activities would be beneficial. Some exploration and construction personnel would be expected to stay in local motels. Exploration, construction and operations personnel would be expected to spend money locally for goods and services, with related increases in local revenue, tax base, etc. The level at which these impacts would occur is unpredictable